GOOD DISINFECTANTS.

Reliable Remedies for Stopping the Spread of Contagious Diseases.

While looking over the papers in his desk recently Chief Sanitary Officer Charles W. Francis found a list of the best disinfectants to be used in preventing the spread of contagious diseases. The list was prepared in 1879, during his term as health commissioner, the yellow fever raging at the time in the South, with some scattering cases in the city and others at quarantine. The following is the list, together with the directions as to the purpose of the articles and how they are to be used:

Carbolic acid (fluid)—To disinfect vaults, cesspools, drains and sewers, garbage and decaying matter, also bedding and clothing, to be used as follows: Dilute at the rate of from forty to one hundred parts of water to one of acid. Half a pint to be poured in every vault. For large masses of filth pour in solution every hour until every part is disinfected. To disinfect clothing mix the acid with an equal quantity of strong vinegar, then dilute as above. For air of sick-room suspend a piece of cloth soaked in diluted solution.

Carbolic Acid (crude)—To disinfect grounds, drains, or the air of a foul place, for the sprinkling of streets, gutters, etc., dilute or thoroughly agitate the acid in forty to fifty parts of water and saturate with same.

Charcoal Powder—To absorb the putrid gasses of any damp or offensive place, sprinkle when dry and fresh.

Chloride of Lime—To give off chlorine to destroy putrid effluvia and to stop putrefaction in cellars, vaults and stables: Use dry and sprinkle on the floors of apartments, or, better, use in solution, and wash the floors and woodwork with it. Strong vinegar poured on it increases its efficiency.

Chlorinated Soda—For disenfecting clothing and cleansing the surface of corpses: Use a pint of the solution to two quarts of hot water.

Heavy Oil of Coal Tar—For drains, sewers, foul heaps, etc.: Mix with sawdust and spread thickly upon the ground or paint the inside walls with it.

Permanganate of Potassa—To be used in disinfecting clothing and towels, bedding, etc., from patents sick with infectious diseases. Throw the clothing to be disinfected into a tub of water in which one ounce of this disinfectant has been dissolved in every three gallons of water.

Quick-lime—To absorb moisture and putrid fluids and free from foul smells: Use fresh stone lime finely broken and sprinkle or place in plates or pan, or whitewash with pure lime in damp rooms.

Sesqui-chloride of iron, for vaults: Take a solution of 1.30 specific gravity and throw it into vaults, or, better still, use what is known as the metropolitan disinfecting fluid, which is the solution of the sesqui-chloride of iron with ten per cent. of carbolic acid.

Sulphurous acid for the disinfection of infected apartments, carpets, etc., to which boiling heat can not be applied: The windows and doors leading out of the infected room to be closed, then fumigate with burning sulphur. The room must remain under the action from two to six hours. A common tenement-room will require about two pounds of sulphur to be burned on a sheet-iron pan supported by an iron stand nine inches high.

Sulphate of Iron (copperas)—To disinfect the same as carbolic acid: One of the best disinfectants is made by dissolving eight or ten pounds of the sulphate in five gallons of water, and add one pint of fluid carbolic acid. Stir or agitate the mixture briskly to make a complete solution. Use in the same manner as was directed for carbolic acid, only pour double the quantity morning and evening into water-closet pans.

Sulphate of zinc may be used for the same purpose as permanganate of potassa. Use two ounces of the sulphate to one gill of water.—*St. Louis Republican.*

DRIED APPLES.

The American Evaporated Article Supplanting the Native Fruit in Germany.

J. H. Smith, United States commercial agent at Mayence, writes the Department of State: The new American method of drying fruit, which gives such satisfactory results, especially in apples, is susceptible of being developed into an important industry. Nowadays in this neighborhood—and I suppose the same is true of all Germany—if you want dried apples, the American fruit is usually the first offered to you, while a long string of adjectives is thrown off at you in praise of it. These apples are to be met with almost everywhere, and are preferred to all others on account of the excellence with which they are dried and for their cheapness. For about three years past—may be four—American dried apples have been in the German market, and have met with great success, forcing the native product almost entirely out of its own domain. And it is really a remarkable accomplishment that the Americans have been able to place upon the market a dried fruit which almost vies in freshness and flavor with the fresh fruit, and yet can be kept for long periods where that perishes. I believe that both for our fruit evaporators, as well as for the dried fruit itself, this country would afford a fine market if properly worked up. The German fruit-driers are of a very inferior character, and the Germans are very far behind the Americans and French in drying fruit. The German cultivators of fruit now find, when they want to dispose of their dried fruit in the markets of neighboring towns, that it is a much easier matter to produce than to sell; and the man who has German dried fruit to vend goes almost in vain upon his journeyings with his pack of samples upon his shoulders, and learns when he seeks to sell his goods that although his product is regarded as being as good, if not better, in the natural quality of the fruit than the foreign article, yet is so inferior in the packing, appearance and general excellence of the drying that few persons want it, and, moreover, discovers, to his amazement, how much finer and cheaper, in apples, for instance, the American fruit is to his own. With pears he meets with more success, and finds them preferred to the French and Italian; but it is always easier to sell dried apples than dried pears, and it is said that twenty centners of apples can be sold to one of pears. The best dried plums come from France. The consumption of good dried fruit with the skin off is slight in this country—may be owing to the inferiority of the drying. The most of families do not like it, and it is seldom seen upon the tables of hotels and restaurants. To find a market it must be sold very cheap, and in this particular the Americans ought to be able to meet the demand. American dried apples, I am told, sell twenty-five to forty per cent. cheaper than the German. Like everything else the Germans are doing their best, I understand, to imitate and counterfeit the fruit-drying machines which our people have put upon the market, and it behooves the American manufacturers to see to it that the fair field which is open to them here is not lost beyond recovery.—*Chicago Times.*

THE POULTRY YARD.

Winter Work Which the Progressive Farmer Will Not Shirk.

Those who have to pay the food bills for a flock of poultry during winter are mostly interested in the quantity of eggs that are gathered daily into the egg basket. During winter when the ground ceases to supply worms, etc., the birds are dependent entirely upon those who care for them, and such persons should be properly qualified by a thorough knowledge of the requirements of the fowls. Good feeding is indispensable. A large proportion of food is consumed in cold weather merely to keep up a normal animal heat, after which comes the natural waste of the system before any part of the food can be spared for forming eggs. This is one reason why hens stop laying during very cold spells. As the days are very short, fowls should be fed as soon as it is light enough for them to see to eat. The best way to be early is to scald or cook the food over night, cover it up and keep it in a warm place till morning. It can then be fed to the flock quite early. Early and late feeding gives better results than late morning and too early evening meals. Warmth and ventilation must receive due care. Provide a good dust bath of sand, ashes and a little flowers of sulphur. The box, if one is used, should be sunk in the ground to a level with the floor close up to a low window so that the sun will shine into it.

A good shed, dry and open to the south, should be attached to every poultry house where many hens are kept, so that they can enjoy the fresh air and keep out of snow and wet. This reminds me of the effects produced by fowls eating snow or drinking snow water, which frequently causes diarrhea and for some reason the birds that indulge in this practice, even when no diarrhea shows itself, get very thin and out of condition. Of course, one can not entirely prevent fowls from eating snow, but they are creatures of habit to a surprising degree. If we neglect giving them fresh water promptly, they will soon contract the habit of eating snow, and even if they are offered water afterwards they will care for it less than if their daily habit of drinking had not been broken up by carelessness. If, during the cold weather, one gives them water with the chill just off, they will appreciate it and seldom eat much snow. During cold spells when stock are confined, they must be kept scrupulously clean. And a handful of air-slacked lime should be dusted around inside the houses every day or two, and at night when the birds are settled drop a handful under the perches, especially if any strong smell is noticed in the houses. Every few weeks treat the perches to a coat of crude petroleum. See that the nests are clean and inviting. Some may say there is a great deal of trouble in all this. Well, there is considerable labor; what can succeed without it? The fowls have to be fed all through winter under any circumstances, and with too little care no eggs can be expected. Now, which pays the better—to have the expense and no eggs, or to take proper care and get eggs while they are dear? This can, without doubt, be done by following the advice here given:

Fowls to lay must be in good condition, not fat; but bright, cheerful and lively. If your fowls are out of condition you must keep up this good feeding, etc., till they are in good order. They will soon let you know that this is the case by their prating and liveliness when they are preparing to lay. I have known some persons whose hens were out of condition from neglect, to start feeding them properly expecting them them to lay at once. This is too much to expect. Any one accustomed to poultry can tell at a glance the condition of a flock. There is always a demand for fresh eggs in winter, and any one having a good flock of early pullets and giving them the necessary care, can hardly fail of being repaid for the trouble.—*Rural New Yorker.*

Reuniting Portions of Fingers.

Numerous instances have been recorded of late in the medical journals of the complete reunion of portions of fingers which had been cut off from the hand, in some cases by the knife, and in others by the axe. In one case a man, in cutting kindling for the morning fire, accidentally cut off the end of his thumb. He had gone from the place some twenty feet, when he returned, picked up the end, wiped it and replaced it, binding it in its original place as nearly as possible. The wound united; and the finger is now as good as ever, save that its sensibility is somewhat diminished. In another case a boy chopped off the end of three fingers. He was seen by a physician three or four hours after the accident. The ends of the fingers had been found in the snow, and were brought to him. He attached them, and two of the three united.—*Science.*

—In a New York paper of a recent date are fifty-one advertisements of different parties, mostly swindlers, who offer prizes for the greatest number of words formed from a given word, charging small entrance fees.—*Chicago Times.*

FORTY YEARS AGO.

Hardships of an Atlantic Voyage Before the Days of Fast Steamers.

At the period of which I speak, the sailing packets which run between London and New York, and between Liverpool and that port, were ships of five to six hundred tons burden. The state-rooms—as the little cabins ranged on either side of the saloon were termed—were below the sea-level. They were incommodious, dark, and ill-ventilated. In fact, the only light they enjoyed was that furnished by small pieces of ground glass inserted in the deck overhead, and from the fan-lights in the doors opening to the saloon, and this was so poor that the occupants of the state-rooms could not even dress themselves without making use of a lamp. The sole ventilation of them was that afforded by the removal of the saloon sky-lights, which, of course, could only be done in fine weather. The consequence was that the closeness of the atmosphere in the state-rooms was at all times most unpleasant; while the smell of the bilge-water was so offensive as to create nausea, independent of that arising from the motion of the vessel. In winter, on the other hand, the cold was frequently severe. There was, it is true, a stove in the saloon, but the heat from it scarcely made itself appreciably felt in the the side cabins.

In other matters there was the same absence of provision for the comfort of the passengers. The fresh water required for drinking and cooking purposes was carried in casks; and when the ship had a full cargo, many of these were placed on deck, with the result that their contents were sometimes impregnated with salt water from the waves shipped in heavy weather. At all times the water was most unpalatable, it being muddy, and filled with various impurities from the old worm-eaten barrels in which it was kept. Not only was the water bad, but the supply occasionally proved inadequate; and when the voyage was an unusually long one, the necessity would arise of placing the passengers upon short allowance.

There was always a cow on board; but there was no other milk to be had than what she supplied, no way of preserving it having then been discovered. Canned fruit and vegetables were equally unknown. There was commonly a fair provision of mutton and pork, live sheep and pigs being carried; but of other fresh meat and of fish, the stock was generally exhausted by the time the vessel had been a few days at sea; refrigerators at that period not having been invented.

But the arrangements on board these ships were defective in much more important matters than in not providing a good table for the passengers. The boats—even when they were seaworthy, which frequently was not the case—were so few in number that, in the event of shipwreck, there was no possibility of their holding more than a third of the souls on board. The long-boat, indeed, was practically useless in an emergency, as it was almost invariably filled up with sheds for the accommodation for the cow, sheep and pigs; and it would have been several hours' work to clear the boat and launch her.

If the cabin passengers had good cause to complain that neither their safety nor their comfort was sufficiently studied, the condition of the steerage passengers was infinitely worse. Men, women and children are huddled like sheep in the quarters assigned them, no separation of the sexes being attempted. The berths, which ran on either side of the vessel, were not inclosed, and were without curtains. The women were compeled to dress and undress before the eyes of their male passengers, and exposed to their course remarks and scurrilous jests.

The steerage passengers were required to both supply and cook their own provisions. There was commonly a fierce struggle for a place at the galley fire, in which the sick and feeble necessarily went to the wall; and sometimes several days would pass without any warm food being obtained by those who were most in need of it. Again, when there was a storm, or even when the ship experienced heavy weather, the hatches were closed, rendering the atmosphere of the steerage almost stifling. In fact, the condition and treatment of this class of passengers were simply abominable, and such as to reflect deep discredit upon the Government for allowing so many years to eclapse ere any attempt was made to deal with the evil.—*Chambers' Journal.*

SOME PLAIN TRUTHS.

Facts That Should Be Digested by Lovers of Both Sexes.

The young man, when he goes to call on his lady love, puts on his best duds, makes his mother or his sisters fly around and help him to get himself up in the best form possible. He jaws them, gets mad, slams things around regardless of consequences, kicks the wall because his shoe pinches, and finally rushes out looking as cross as a teased terrier. He foregoes a drink or a cigar for fear of their spoiling his breath, and loads his handkerchief with the perfume best calculated to disguise and smother the taint of cigarette smoke. The young lady is expecting him, of course; has had her hair done up in papers all day; the afternoon has been spent in getting ready to receive him, and when the parlor lights are burning she looks a very angel. Had he seen her in the morning with a handkerchief tied around her head, heard her complaints of indigestion and nervous headache, seen her slovenly morning wrappings, and caught a few of her tartly-expressed views on the conduct of her mother and the family in general, he would have been in a quandary as to which region the angel belonged to.

In the parlor all is smiles, tenderly lisped phrases, melting glances and protestations against all that is rude or disagreeable and in favor of that which is gentle and long suffering. They deceive themselves as well as each other. Probably they do not mean it, but they do it. Of course, the ardent youth who reads this will say it is not for him. Those who have had their wings singed in the delusive blaze are the ones who will read it with deepest interest and appreciate it most. They can only sigh and wonder why some one did not say as much to them, yet there is much satisfaction even in that sigh. If they are sufficiently philosophical to make the best of it, to keep the bright side out, and to persistently refuse to go behind the scenes, they may get along; but if they give way to regrets, take to drink or finding fault with their mothers-in-law, their days of happiness are done.

Persons of ardent dispositions, especially young persons, should be very careful not to allow themselves to be carried too fast or too far by what they consider true love. It may pan out nothing more enduring than infatuation. The sensations are so similar at first that an expert might be bothered for awhile to determine which is which, but time will tell the tale. Love remains bright alike through sunshine and storm, and even time's corroding breath does not dim its luster. On the other hand, infatuation flashes and burns with an intense, brilliant glare, dimming every other light, and paling the glories that have always been regarded as resplendent. As months pass, however, the glare becomes less intense, and finally the place where the fire was is marked only by smoldering embers or unhappy lives.

There are times in the life of every young man when he thinks his whole happiness, usefulness and existence itself depends on marrying a particular lady. He is in earnest about it, although he may be ashamed of himself a few years later. How fortunate if something happens to prevent him giving way to his matrimonial impulses, because he is just as sure to be ashamed of his silliness married as single. If you can induce married folks to tell you the truth, the whole truth and nothing but the truth about their young days and their early love affairs, they will all, with rare exceptions, tell of sweethearts whom they regarded as heavensent, and that no amount of reasoning would have convinced them that they could live without their constant company.

First love is all right if the lovers are properly mated. The mere fondness for each other, and the lovesickness, which is usually developed in such cases, is not a sure sign of fitness for marriage. There are scores of bachelors and maids who are such from disappointment in their first love. It affected them so that they have been unable to banish that "fairest face and divinest form" from their hearts. There is always a vacant chair beside them and an invisible guest at their feasts. These are comparatively rare instances, yet enough to make a respectable exception to the general rule. It is not advisable to make an engagement until both parties have arrived at an age when they are able to be trusted with the transaction of important business. They should have a clear comprehension of the responsibilities they are assuming, have a well-defined course marked out through life, and a definite understanding with each other as to how they are to live. By following such a course there is not much danger of making a mistake.—*Pittsburgh Dispatch.*

WHITE LEAD.

How It Is Manufactured in Various Countries and of What It Is Composed.

White lead is not a simple carbonate, but a compound of hydrate with carbonate of lead, in proportions varying from two to four of carbonate to one of hydrate. There are three methods by which it is made on the large scale, known as the French, English and Dutch methods; they all depend primarily on the formation of the basic acetate of lead and its conversion into carbonate. In the French method a solution of basic acetate of lead is prepared by the digestion of litharge with acetic acid or a solution of acetate of lead, or by the action of acetic acid on finely divided metallic lead with access of air. In this solution is forced carbonic acid gas, which precipitates two-thirds of the lead, and this, after settling, is collected and dried. The supernatent clear liquid, which is a neutral or slightly acid solution of acetate of lead, is boiled with a litharge, and the basic acetate thus formed again treated with carbonic acid. Experience has shown that it is not absolutely necessary to have the basic acetate of lead completely in solution as in the French process.

In the English process, litharge, with about one per cent. of acetate (sugar of lead), is mixed with water to a moist mass, and exposed under constant stirring to the action of carbonic acid, when the litharge is converted with great rapidity into white carbonate.

The Dutch process, which is the oldest in use, consists in exposing thin sheets of lead to vapors and acetic acid and carbonic acid for a long period. In earthen vessels are placed sheets of lead rolled into the form of a spiral; into the bottom of these vessels, but not in contact with the lead, is poured a mixture of weak vinegar and substances capable of fermentation, as yeast; a plate of lead serves as a cover. From 1,500 to 2,000 vessels thus prepared are piled together in so-called *loogen*, and surrounded with spent bark or stable litter; after six weeks the lead will be found thickly coated or entirely converted into white carbonate. The action is here substantially the same as in the other processes given; the lead is first converted into acetate, and subsequently into carbonate by the carbonic acid given off by the decomposing matters present, which also serve to maintain an elevated temperature. The Dutch white lead contains more oxide of lead and possesses more body than the French, but is said to have a greater tendency, when used as a paint with oil, to turn yellow on exposure. White lead is frequently adulterated with other substances, principally sulphate of baryta.—*Toledo Blade.*

—The recent storm not only caused the Emmons County (D. T.) *Record* to issue on brown paper, but the editor advertises as follows: "If any one sees a weary-looking and slim female cayuse, sort of a brindle-roan in color, minkish in build, and youthful in appearance, wandering about on the prairie and nibbling cacti, please toss her a bale of hay and drop us a postal card. She's our'n."

PITH AND POINT.

—Terrapin, canvasback duck, and brook trout, chopped fine, with plenty of seasoning, make a very nice hash. Cut this out and paste it on your landlady.—*Puck.*

—Jakey—Fader, dere's a fly in der soup. Mr. Cohn—Vell, eat all but der fly before you show it to der vaiter; den you can get some more.—*Rambler.*

—It costs twelve dollars a night to illuminate "Liberty Enlightening the World." This is another evidence of how costly it is to make a woman look attractive.—*N. Y. Graphic.*

—"Smile when you can," warbles a new-fledged poet. We can do that easy enough, but what we are anxious to know is how a fellow is going to smile when he can't.—*Warren (Pa.) Mirror.*

—Holding a skein of yarn for a young lady is universally considered one of the lightest and pleasantest of occupations, but "holding yarn" for a fellow's sister gets awful tiresome.

—Anastasia (about to be married): "Ned, see if this reads all right for the invitations: 'Your presence is requested ——.'" Devoted brother: "Stop there, sis! It isn't grammatical. You mean: 'Your presents are requested.'"—*N. Y. Independent.*

—Thirty-two hundred babies are born in the United States every day, but a man never thinks of the other thirty-one hundred and ninety-nine when he is confined in a railroad car with a cherub that wants to see if it is possible to howl louder than the engine can whistle.—*Boston Budget.*

—"Oh, my dear, generous husband!" murmurs the fond wife. "How grand you are! I only wish I could be you for just one day." "Why, dearest?" asks the unsuspecting man. "Because then I would buy a new bonnet for my loving little wife," replies the designing creature.—*N. Y. Ledger.*

—First Omaha man—Have any success on your hunting expedition? Second Omaha man—Yes, considering the weather, I did admirably. By the way, you remember Simpkins, the poet; he lives near where I was and I called on him. "Well! Well! Did he read any of his poetry?" "O no! I had my gun along."—*Omaha World.*

—"Dere am t'ree t'ings," says Uncle Ned, "w'ich ebery young pusson mus' keep in mind good, an' dem t'ree t'ings am dese: De wise man an' de fool doan quarrel, but two fools or two wise men kain't get along so well. De man what marries a 'oman 'case she's got more sense den he has is neber allowed ter lose sight o' dat fack. De chile dat too soon shows signs of smartness doan turn out ter be de smartest man."—*Toledo Blade.*

BUSINESS AMIABILITY.

Courteous Treatment of the Rich and Poor, and Its Commercial Value.

Bishop Ames, of the Methodist Episcopal Church, once delivered a sermon in Washington in the presence of members of Congress, the President and a large number of other Government officials on the subject of amiability in business. His text related to the personal characteristics of the prophet Daniel, the leading characteristic of whom was amiability of deportment, winning to Daniel by his traits, nearly all with whom he came in contact. From this starting point the Bishop proceeded to sum up some of the observations of his own long life, showing how men of his acquaintance had succeeded in their several occupations by the practice of habitual courtesy without insincerity, this trait, of course, accompanied by honesty and industry. "Other things being equal," said the great preacher, "I always prefer to buy my goods at the store from that clerk who has a friendly word and a kindly look of recognition. So, too, I prefer to deal with that business man who has a pleasant demeanor, and treats me like a brother. Other things being equal, such a clerk and such a business man will win where others of different social qualities will fail."

The good Bishop long since passed to final rest, but the lesson he sought to impress upon the young, on the occasion of which we speak, is as important now as it was then, and employer and employed in all branches of trade and industry could heed it with profit. In politics, the lack of amiability has sent many a candidate to the rear, and in business depending upon the voluntary favor of the public (and what business does not?) it marked the line between success and failure for many a firm. Courteous treatment of the rich and poor alike thus has not only a commercial value above estimate, but it comes very near to the fulfillment of a divine command.—*Laundry Journal.*

MUSIC'S CHARMS.

Staid Scotchmen Whose Indignation Was Soothed by a Tenor Voice.

Here is a story of a meeting of creditors. The place was an old-fashioned Scotch borough, fast dwindling into a village, and the meeting was held in the smoke-room of the largest inn, the time being an hour in the evening when every one's work was done. A chairman was appointed, the usual preliminaries were gone through, and then the statement of affairs was read. Sad to say, there were no assets. By this time most of those present had filled their pipes and ordered comforting and soothing drinks. The debtor's solicitor had no offer to make, and for a time there was a dead pause, and every one looked very blue indeed. But presently one of the company remembered that the debtor had a capital tenor voice, and he suggested to the chairman that, as he (the debtor) could make no offer to his creditors, he could at least give them a song. The suggestion was met with considerable approval, and was at once acted upon. The unfortunate man was called into the room, and, very much to his astonishment, was asked to sing to the meeting. He gave them: "Then You'll Remember Me," and several other appropriate songs, which met with rapturous applause, and before the company broke up they unanimously voted him his immediate discharge. Who will say after this that the art of singing should not be cultivated?—*Christian Union.*

READING FOR THE YOUNG.

A BEGGARMAN.

Good morning Mr. Beggarman!
You're cold and hungry, too?
Well, come right, and I will see
What I can do for you.
You'd like a lump of sugar and
Some raisins, or a cake?
Why, what a funny beggarman
You are, such things to take!

I think some bread and butter would
Be better far for you.
Where did you get that queer old coat?
Your cap is funny, too!
Here is some fruit and frosted cake;
Now you must go away.
I can't have little beggermen
Take off their things and stay.

What! you're my little brother Ted?
And dressed up, just to see
If you could be a beggarman,
And play a trick on me?
Well, kiss me once, and once again,
For fruit and cake to pay.
And I'll believe you're brother Ted,
And you shall with me stay.

—*M. Thayer Rouse, in Golden Days.*

THE TOBOGGAN.

Instructions Which Will Interest Boys Who Wants the Old Indian and Canadian Sled.

Many a time when I was a boy did I climb one or another of the snow-covered hills that surrounded my country home, and try to slide down on the ordinary steel-shod sled of the period. Now and then there would be a crust that would bear, and then it was royal sport to range about with the whole world for a coasting ground. Generally, however, the crust played us false, and many a flying somersault was the result.

If we had only known about toboggans! In most respects I think the boys of my time had quite as much fun as youngsters of to-day; but we hadn't toboggans, and I shall never cease to feel that my boyhood was not what it might have been, for the want of them. They had them in Canada, even then, and long before, for they were invented by the Indians of the snowy North. But no Americans went to Canada for fun in the winter until Lord and Lady Dufferin began to make things lively with festivals and the like. Then the beauties of the toboggan suddenly became evident, and Young America cheerfully paid a third of the cost price in duties, that he might bring a genuine Canadian toboggan back across the border. There will never be really friendly relations between the United States and Canada till the Kanucks have apologized for having for so many years kept the secret from thousands of American boys who were longing to slide on field snow, instead of being obliged to use ordinary roads like other folks. Toboggans are so little known even to-day on this side the border that some account of them is in order, with building directions for those who are handy with tools.

The Indians of the far North were obliged to pass so much of their lives in wading through deep snows that they invented snow-shoes and toboggans. The first enabled them to walk on top of the snow, and the second to drag a heavy load behind them when they walked. Like nearly all the barbaric inventions, the toboggan is the perfection of simplicity and lightness. Something was wanted that would bear a heavy load without sinking into the snow. With infinite patience the Indian hewed out a broad, thin board. This would sustain the load, but its fore end plowed into the snow; so it was bent upward and the plowing difficulty was overcome. After the toboggan had received a few hard knocks it began to split; so he put cleats across. Then he found that he needed side rails, around which to pass lashings to keep his peltries from falling overboard, and the affair was complete; and straightway he named it a toboggan, and did carry his goods and chattels thereon, until the pale-face beheld and traded for it, and transformed it into a vehicle for his young men and maidens to disport themselves withal. The Indian artifice had neither wire nor nails nor screws; so he used leathern throngs or deer sinews to lash the parts of his handiwork together.

Of course, as soon as sawed boards came upon the market they took the place of the hand-made product, being much lighter and better every way than any thing the Indian could work out with his knife and hatchet; but he still maintains that leather thongs are preferable to the screws and nail of civilization, which are apt to pull out under the tremendous shocks and strains of rough usage. Moreover, if one drops a screw in the snow when making repairs it is generally lost forever, while a bit of leather thong will remain in sight wherever it chances to fall. Besides, leather can be carried in a pouch or pocket without wearing holes in the garment, and without making uncomfortable dents in the person of the tobogganer when he chances to sit or lie down on his tool chest.

To make a toboggan large enough to carry two, one must have a board of basswood oak or ash, 6 feet long, 16 inches wide, and 3-16 or ¼ of an inch thick. In many places it is easier to procure narrower boards, and on many accounts they are better than wide ones. They are less likely to split or warp, and the cracks between them keep the toboggan from slipping sidewise. If narrow planking is used, it is better to make the toboggan 18 inches wide. This will call for three boards, each 6 feet long and 6 inches wide. Quarter-sawed oak is best. Ash is almost as good, and basswood will answer very well, but must not be too thin. The cleats and side-rails of some tough light wood like ash. The Indians used saplings in the natural shape, about an inch in diameter. Civilized builders may use inch-square stuff, with the corners rounded off; large dowel-rods will do for the cross cleats. They can be had ready-made from cabinet-makers or dealers in hardwood lumber. The seven cleats are as long as the toboggan is wide, and the two side-rails are each 4 feet 6 inches long. Leather thongs are easiest found at the shoe-makers' Porpoise leather shoe-strings or strips of rawhide are best; but any sound leather will do.

Lay the boards side by side on the floor, and lay the cleats in position, No. 1 being about an inch from the after end and the rest at intervals of a foot to No. 6 (leave No. 7 for the present). Mark the positions of the cleats on the board with a pencil, and make dots where the thong-holes are to come—four holes at the ends of the cleats and two at the edges of the boards where the cleats cross the cracks. The holes at the ends of the cleats should not be nearer than three-fourths of an inch to the edges of the boards. Those at the cracks may be half an inch from the edges. Bore the holes large enough for the thongs to pass through easily. Then turn the board over and cut a shallow groove lengthwise of the grain between each pair of holes, so that the thongs will be "countersunk," or even with the under surface. After this has been done, lash the cleats in position, beginning with the inner holes and leaving the side rails till last. Be careful to round off all corners where the thongs bear upon them. Cut shallow notches at the ends of the cleats where the side-rails rest, and lash them firmly in place. The side-rails should reach only a trifle beyond cleat No. 5. Lash No. 7 in position on the under side of the toboggan at the fore end.

It now remains to bend the boards. This is easiest done by steaming them over or soaking them in, very hot water, and bending them before lashing the toboggan together. But it can be done after the lashing by fastening double cords around cleats Nos. 5 and 7, and twisting with a stick until the ends are bent over as far as required. These cords are usually left in place, the sticks and the extra twist being removed after the wood has dried. The toboggan is now complete, with the exception of the hand-line, which is fastened to the ends of cleat No. 6.

A toboggan constructed on the Indian plan is somewhat loose-jointed, but it is none the worse for that. If preferred, the builder may use copper wire for lashings, or may dispense with lashings altogether and use screws or clinch-nails. Machine-made toboggans of excellent quality, fitted with cushions and all the luxuries of the season, are now largely manufactured in the United States and Canada; but a home-made article is far more satisfactory than any thing that can be bought. With such a craft the snow fields may be navigated in any direction down hill, even when the crust is not strong enough to bear a foot passenger, or even when there is no crust at all. Steering is done either with the feet or with short sticks held out in each hand.

Toboggans are made ten or twelve feet long—long enough to carry six or eight passengers; but they are built precisely like the smaller specimens, being merely lengthened, with an additional cross-cleat at every extra foot, and need not be described here.—*Charles Ledyard Norton, in Inter Ocean.*

THE BEST ADVICE.

How a Small Boy Saved the Great Henry Clay from a Goat's Fury.

A queer incident about the adventure of the famous Henry Clay with a Washington goat is fresh from the lips of a General of the army. He says:

"I think I can tell you a new story about Henry Clay which has not been printed. I was a boy at the time. Clay and a party of Congressmen were walking down Pennsylvania avenue on their way from the Capitol. In those days Congress generally adjourned about three o'clock in the afternoon—much earlier than it does now. We boys were playing with a goat owned by Goldman Nailor, the father of the Nailor brothers.

"Well, Mr. Clay came along in the most dignified fashion, but there was evidently something about him which attracted the goat's attention. With a bound the goat made for Mr. Clay; but the latter saw him coming, and appreciated the danger. We yelled: 'Look out!' But that was unnecessary, for Mr. Clay seized the goat by both horns and held him.

"That was a comparatively easy matter; but it was an open question as to whether Mr. Clay had the goat or the goat him. As long as Mr. Clay held on he was safe enough; but he knew enough about goats to know that the moment he let go he would be butted, sure as death. There were various suggestions made by the Congressmen present, but none of them seemed to suit the exigencies of the occasion. Finally Mr. Clay appealed to the boys. One little urchin stepped forward, and said, in a sharp, shrill voice:

"'Mr. Clay, turn his head to the right and run like blazes.'

"Clay obeyed the instruction, and an instant later was safe in a store. The goat went bounding down the avenue. When Mr. Clay came out of the store, he called the urchin up to him, and and patting him on the head, said:

"'My son, that was the best advice I ever had.'"—*Golden Days.*

Slave-Hunting in Africa.

There seems to be reason to fear that slave-hunting is again largely on the increase in Central Africa. That was, of course, foretold as a certain consequence of the abandonment of the Soudan. Now we hear that the station at Stanley Falls, on the Upper Congo, has been abandoned under the pressure of Arab hostilities, instigated, it is believed by the veteran slave-hunter Tippu Tib, whose operations in this very region have been described by Mr. Stanley. That gentleman came up with a single caravan of 3,300 slaves, mostly women and children; and he calculates that for every slave caught six had been killed in the foray. The terrible sufferings of the desert marches which the caravans have commonly to make, cause, of course, a frightful waste of life. Still the difficulty remains as to what becomes of these vast droves of human beings. One gentleman states that 20,000 slaves passed his house on their way to the east coast in a single year. The east coast is closely watched by our ships, and only a chance cargo is supposed to escape their vigilance. Where did the 20,000 go to?—*St. James' Gazette.*

—A New York sharper, who only had desk-room himself in an office, "rented" the rest of the place to an Englishman for five hundred dollars a year. The money was paid in advance and the sharper is now some distance in advance of the officers.—*N. Y. Sun.*